REMARKS

Applicants affirm the election of Group I, claims 1, 2 and 5 for prosecution, without traverse. Claims 3 and 4 have been canceled. Applicants reserve the right to file a divisional application directed to the canceled subject matter.

As amended, claim 1 is directed to a method for the sterilizing/cleaning of an object with an aqueous solution of a peroxide, which comprises the steps of providing an electrolytic cell 21 comprising an anode chamber including an anode 41, a cathode chamber including a gas cathode 42, a catholyte inlet 46 and a catholyte outlet 47, a membrane 43 separating the anode and cathode chambers, and a particulate solid acid catalyst 44 arranged between the gas cathode and the membrane; supplying an oxygen-containing gas to the cathode chamber, supplying an aqueous electrolyte containing acetic acid and/or an acetate to the cathode chamber, and applying a voltage across the anode and the cathode to thereby electrolytically synthesize a peracetic acid-containing aqueous solution; and contacting the object with the peracetic acid-containing aqueous solution.

Claim 5, directed to a method for electrolytic synthesis of peracetic acid which comprises electrolytically synthesizing peracetic acid from acetic acid and/or acetate, in an oxygen-containing gas as starting materials in the presence of a solid acid catalyst, has been similarly amended.

Support for the claim amendments is found, for example, by reference to Fig. 2, the description at page 16, line 12 - page 17, line 4 and the working examples.

Review and reconsideration on the merits are requested.

Claims 1 and 2 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent 6,387,238 to Merk et al. Merk was cited as disclosing the claimed method, including sterilizing with an aqueous solution containing an electrolytically synthesized peracetic acid and an oxygen-containing gas, which aqueous solution is reused for electrolytic synthesis.

Applicants traverse, and respectfully request the Examiner to reconsider in view of the amendment to the claims and the following remarks.

The invention of present claim 1 is characterized in that a peracetic acid-containing aqueous solution is electrolytically synthesized, which limitation is not met by Merk et al.

In Merk et al, electrolytically generated hydrogen peroxide reacts with a peracetic acid precursor, such as acetic acid and/or acetate, to generate an antimicrobial solution containing peracetic acid. In reference to Fig. 1 of Merk et al, catholyte containing hydrogen peroxide is withdrawn from the cathode chamber 14 through an outlet 72 to a holding chamber 74. The peracetic acid precursor, which may be, for example, acetic acid, is supplied to the holding chamber 74 from a reservoir 78 (col. 8, line 54 - col. 9, line 3). The peracetic acid thus produced is carried from the holding tank 74 via a fluid line 89 to a decontamination system 90 (col. 11, lines 54-58).

In Merk et al, when acetic acid solution in reservoir 78 is added to holding chamber 74 containing electrolytically generated hydrogen peroxide, the resulting peracetic acid is not electrolytically synthesized as required by present claim 1.

Another difference is that the present invention employs a particulate solid acid catalyst arranged between the gas cathode 42 and the membrane 43, whereas Merk et al does not disclose the use of a particulate solid acid catalyst.

Because Merk et al fails to meet each and every element of the claimed invention, it is respectfully submitted that amended claim 1 defines novel subject matter and withdrawal of the foregoing rejection under 35 U.S.C. § 102(e) is respectfully requested.

Claim 5 was rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent 6,949,178 to Tennakoon et al.

Tennakoon et al was cited as disclosing electrolytically synthesizing peracetic acid in the presence of a solid acid catalyst, including meeting the remaining limitations of claim 5.

Applicants respectfully traverse for the following reasons.

The invention of amended claim 5 is characterized in that the particulate solid acid catalyst 44 is arranged between cathode 42 and membrane 43. This limitation of amended claim 5 is not met by Tennakoon et al, where the catalyst provided on the surface of anode 204 is present in the anode compartment and is separated from cathode 207 via intervening electrolyte 205.

Because amended claim 5 differs from the prior art with respect to one or more elements thereof, it is respectfully submitted that amended claim 5 defines novel subject matter and withdrawal of the foregoing rejection under 35 U.S.C. § 102(e) is respectfully requested.

Withdrawal of all rejections and allowance of claims 1, 2 and 5 is earnestly solicited.

In the event that the Examiner believes that it may be helpful to advance the prosecution of this application, the Examiner is invited to contact the undersigned at the local Washington, D.C. telephone number indicated below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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